

*A8 Cont'd*  
*11*  
The kit of claim ~~24~~<sup>25</sup>, further comprising a substrate of the protein of

claim ~~24~~<sup>25</sup>

*A9*  
27. A method for testing a disease that causes accumulation of A $\beta$  in the brain, comprising the steps of:

(a) preparing a sample from a subject, and

(b) detecting the amount of the protein of claim 2 contained within the sample, using an antibody that binds to the protein.

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29. The method of claim 27, wherein said disease that causes accumulation of A $\beta$  in the brain is selected from the group consisting of senile dementia, Alzheimer's disease, Down's syndrome, hereditary cerebral hemorrhage, and cephalic contusion.

REMARKS

Claims 1 and 2 have been combined and multiple dependency eliminated to reduce claim fees.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 650-326-2400.

Respectfully submitted,

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**VERSION WITH MARKINGS TO SHOW CHANGES MADE**

Claim 2 was amended as follows:

2. (Amended) A protein comprising peptidase activity towards brain APP, wherein said protein is selected from the group consisting of:

(a) a protein comprising an amino acid sequence in which one or more amino acids are replaced, deleted, inserted, and/or added to the amino acid sequence of any one of SEQ ID NOs: 2 to 4;

(b) a protein encoded by a DNA that hybridizes with a DNA comprising the nucleotide sequence of SEQ ID NO: 1

(c) a protein comprising the amino acid sequence of any one of SEQ ID NOs: 2 to 4.

Claim 3 was amended as follows:

3. (Amended) A DNA encoding the protein of claim ~~1~~ or 2.

Claim 5 was amended as follows:

5. (Amended) A vector into which the DNA of claim 3 ~~or~~ 4 is inserted.

Claim 7 was amended as follows:

7. (Amended) A method for producing the a protein ~~of claim 1 or 2~~, wherein said method comprises the steps of culturing the a host

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cell containing the DNA of claim 3 ~~of claim 6~~, and collecting from the cell or its culture supernatant, a recombinant protein expressed from the DNA within the cell.

Claim 8 was amended as follows:

8. (Amended) An antibody against the protein of claim ~~1~~ 2.

Claim 9 was amended as follows:

9. (Amended) A partial peptide of the protein of claim ~~1~~ 2.

Claim 11 was amended as follows:

11. (Amended) A method for screening a compound that binds to the protein of claim ~~1~~ 2, comprising the steps of:

(a) contacting a test sample with the protein or a partial peptide thereof,

(b) detecting the binding activity between the test sample and the protein or the partial peptide thereof, and

(c) selecting a compound that has an activity to bind to the protein or the partial peptide thereof.

Claim 12 was amended as follows:

12. (Amended) A compound that binds to the protein of claim ~~1~~ 2.

Claim 14 was amended as follows:

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14. (Amended) A method for screening a compound that promotes or inhibits the peptidase activity of the protein of claim ~~1- $\alpha$~~  2, comprising the steps of:

(a) contacting the protein of claim ~~1- $\alpha$~~  2 with its substrate in the presence of a test sample,

(b) detecting the cleavage of the substrate, and

(c) selecting a compound comprising the activity to increase or decrease substrate cleavage caused by the protein of claim ~~1- $\alpha$~~  2, in comparison to the cleavage in the absence of the test sample (control).

Claim 16 was amended as follows:

16. (Amended) A compound comprising the activity to promote or inhibit peptidase activity of the protein of claim ~~1- $\alpha$~~  2.

Claim 17 was amended as follows:

17. (Amended) The compound of claim 16, wherein said compound is isolated by the method of claim 14 ~~or~~ 15.

Claim 18 was amended as follows:

18. (Amended) An A $\beta$  production regulator, comprising the protein of claim ~~1- $\alpha$~~  2 as an active ingredient.

Claim 19 was amended as follows:

19. (Amended) A drug for treating a disease that causes accumulation of A $\beta$  in the brain, wherein said drug comprises the protein of claim ~~1- $\alpha$~~  2 as an active ingredient.

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Claim 21 was amended as follows:

21 (Amended) An A $\beta$  production regulator, comprising a compound of ~~any one of claim 12, 13, 16, or 17~~ as an active ingredient.

Claim 22 was amended as follows:

22. (Amended) A drug for treating a disease that causes accumulation of A $\beta$  in the brain, comprising a compound of ~~any one of claim 12, 13, 16, or 17~~ as an active ingredient.

Claim 24 was amended as follows:

24. (Amended) A kit for screening a compound that promotes or inhibits peptidase activity of the protein of claim ~~1 or 2~~, wherein said kit comprises the protein of claim ~~1 or 2~~.

Claim 25 was amended as follows:

25. (Amended) The kit of claim 24, further comprising a substrate of the protein of claim ~~1 or 2~~.

Claim 27 was amended as follows:

27. (Amended) A method for testing a disease that causes accumulation of A $\beta$  in the brain, comprising the steps of:

(a) preparing a sample from a subject, and

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(b) detecting the amount of the protein of claim ~~1~~ or 2 contained within the sample, using ~~the~~ an antibody ~~of claim 8~~ that binds to the protein.

Claim 29 was amended as follows:

29. (Amended) The method of claim 27 ~~or~~ 28, wherein said disease that causes accumulation of A $\beta$  in the brain is selected from the group consisting of senile dementia, Alzheimer's disease, Down's syndrome, hereditary cerebral hemorrhage, and cephalic contusion.

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